ACC.12
61st Annual Scientific Session & Expo
ACC-i2 with TCT innovation in intervention

E1655
JACC March 27, 2012
Volume 59, Issue 13

Prevention

PREDICTIVE VALUE OF PLASMA APOLIPOPROTEIN A1 LEVELS FOR MORTALITY IN ACUTE MYOCARDIAL INFARCTION IN THE PERCUTANEOUS CORONARY INTERVENTION ERA

ACC Moderated Poster Contributions
McCormick Place South, Hall A
Sunday, March 25, 2012, 9:30 a.m.-10:30 a.m.

Session Title: Prevention: Clinical: Novel Cardiovascular Disease Risk Factors: What's New?
Abstract Category: 9. Prevention: Clinical
Presentation Number: 1182-206

Authors: *Min Goo Lee, Myung Ho Jeong, donghan Kim, Ki Hong Lee, Young Joon Hong, Young Keun Ahn, The Heart Research Center of Chonnam National University Hospital, Gwangju, South Korea*

Background: Apolipoprotien A1 (apo A1) helps to clear cholesterol from arteries as a major component of the high density lipoprotein complex, and expressed antiatherogenic properties. Recent studies suggest that decrement of plasma apo A1 is a potential risk factor for cardiovascular disease and death. The aim of this study was to evaluate a possible relationship between apo A1 levels on admission and mid-term outcome in patients with acute myocardial infarction (MI) after percutaneous coronary intervention (PCI).

Methods: A total of 1,578 acute MI patients underwent PCI were included and followed up during 12 months period, and these patients were stratified into quartile groups according to the plasma apo A1 levels. The influence of cardiac risk factors, medications, angiographic findings, and interventional procedures were analyzed, and Cox proportional hazard analysis was used to determine the influence of plasma apo A1 levels on mid-term mortality. End points were cardiac death, recurrent MI, target lesion revascularization (TLR), and a composite of major adverse cardiac events (MACE).

Results: Study populations were divided into four groups; group 1 (apo A1 >131.0 mg/dl, n = 399), group 2 (apo A1 = 117.0-131.0 mg/dl, n = 396), group 3 (apo A1 = 104.0-116.9 mg/dl, n = 381), and group 4 (apo A1 <104.0 mg/dl, n = 402). A Kaplan-Meier curve showed meaningful graded relationship between homocysteine levels (quartiles) and freedom from MACE (log rank p = 0.021). Even after adjustment for potential confounders by Cox regression analysis, meaningful association between apo A1 levels and MACE remained (HR = 1.7, 95% CI = 1.06-2.70, p = 0.027).

Conclusions: Plasma apo A1 is an independent predictor of mid-term MACE in acute MI patients underwent PCI.